



WHAT IS CLAIMED IS:

1. A device for controlling a vehicle comprising:

a housing;

5 a rectangular printed circuit board fixed to the inside of said housing and having a control circuit thereon; and

 plugs provided along one side of the rectangular printed circuit board to transfer signals between the inside and the outside of said housing;

10 wherein said plugs respectively contain plug pins and the plug pins are electrically connected to said printed circuit board via bonding wires inside said housing.

2. The device for controlling a vehicle according to claim 1,

15 wherein

 said printed circuit board is rectangular and

 said plugs are arranged on said printed circuit board along the longitudinal side thereof.

20 3. The device for controlling a vehicle in accordance with claim 1, wherein

said bonding wires are members of a flexible cable.

4. The device for controlling a vehicle in accordance with claim 1,
wherein

5 said plugs comprise a first plug which transfers signals related to
engine controlling

and a second plug which transfers signals related to vehicle
controlling.

10 5. The device for controlling a vehicle in accordance with claim 1,
wherein

a grounding pin is provided on the inner wall of said housing
between said plugs to ground said printed circuit board and said
grounding pin is connected to said printed circuit board via a bonding
15 wire.

6. The device for controlling a vehicle according to claim 1,
wherein

said printed circuit board has a control circuit made up with
20 modules which perform preset functions.

7. The device for controlling a vehicle in accordance with claim 6,
wherein

said printed circuit board is rectangular,

said plugs comprise a first plug which transfers signals related to
5 engine controlling

and a second plug which transfers signals related to vehicle
controlling,

said first and second plugs are arranged along the longitudinal
side of said rectangle and respectively close to each shorter side thereof,

10 a first module containing a CPU to control the other modules is
provided about in the longitudinal center of said printed circuit board,

a second module to perform a processing related to engine
controlling is provided closer to said first plug than said first module,
and

15 a third module to perform a processing related to vehicle
controlling is provided closer to said second plug than said first module.

8. A device for controlling a vehicle comprising:

a housing;

20 a printed circuit board fixed to the inside of said housing and has
a control circuit made up with modules which perform preset

functions;

plugs for transferring signals between the inside and the outside of said housing; and

plug pins in each plug electrically connected to said printed circuit board via bonding wires inside said housing.

9. The device for controlling a vehicle in accordance with claim 8, wherein

said printed circuit board is rectangular,

a first module containing a CPU to control the other modules is provided about in the longitudinal center of said printed circuit board, and

a second module to perform a processing related to engine or vehicle controlling is provided longitudinally next to said first module.

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10. The device for controlling a vehicle in accordance with claim 8, wherein

said printed circuit board has a multi-layer circuit structure comprising a first ceramic layer, a second layer which is provided on said first layer and has a power supply pattern and a ground pattern thereon, a third layer which is provided on said second layer and has a

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resistive element thereon, and a fourth layer having wiring patterns of said modules.

11. The device for controlling a vehicle in accordance with claim 8,
5 wherein

at least one of said modules has a multi-layer supporting board whose layers are separated from each other by an insulating ceramic layer and electrically interconnected via through-holes.

10 12. The device for controlling a vehicle in accordance with claim 11, wherein any of said layers contains resistor and capacitive elements.

13. The device for controlling a vehicle in accordance with claim 8,
15 wherein at least one of said modules has a silicone-made supporting board.

14. The device for controlling a vehicle in accordance with claim 8,
wherein at least one of said modules has a resin-made supporting
20 board.

15. The device for controlling a vehicle in accordance with claim 8,
wherein at least one of said modules has a multi-layer supporting
board which is separated into layers by a metallic core layer and an
insulating resin layer and said layers are electrically interconnected
5 via through-holes or inner via-holes.